AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Original)A method of obtaining a digital code representative of a skin-covered body part, the method including:
   - acquiring an image of the skin-covered body part, the image including a plurality of pixels, each pixel having an associated shade value in a range of shade values;
   - identifying a plurality of subsets of pixels from the plurality of pixels, each subset of pixels including at least two pixels having a common one of a plurality of designated shade values in the range of shade values;
   - for each of a plurality of combinations of pixels taken from the pixels in the subsets of pixels, determining a geometric measure of the pixels in said combination;
   - encoding the geometric measures into a digital code for the skin-covered body part.

2. (Original) The method defined in claim 1, wherein said acquiring an image of the skin-covered body part is performed by a CMOS charge-coupled device.

3. (Original) The method defined in claim 1, wherein the image is derived from a live scan of the skin-covered body part pressed onto a platen.

4. (Original) The method defined in claim 1, wherein said identifying a plurality of subsets of pixels from the plurality of pixels includes identifying a first subset of pixels and identifying a second subset of pixels.

5. (Original) The method defined in claim 4, wherein said identifying a first subset of pixels includes:
   - identifying a first pixel having any of the designated shade values;

1   -   identifying a second pixel having the same designated shade value as the first

2   pixel;

3   wherein the first subset of pixels includes said first and second pixels.

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5   6. (Original) The method defined in claim **5**, wherein said identifying a second

6   subset of pixels includes:

7   -   identifying a third pixel having any of the designated shade values;

8   -   identifying a fourth pixel having the same designated shade value as the third

9   pixel;

10   wherein the second subset of pixels includes said third and fourth pixels.

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12   7. (Original) The method defined in claim **6**, wherein identifying the first pixel

13   includes identifying which pixel having the designated shade value is nearest a

14   reference point in the image.

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16   8. (Original) The method defined in claim **7**, wherein identifying the second pixel

17   includes identifying which pixel having the designated shade value is nearest the

18   first pixel.

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20   9. (Original) The method defined in claim **7**, wherein identifying the second pixel

21   includes identifying which pixel separated from the first pixel by at least a

22   minimum distance and having the designated shade value is nearest the first pixel.

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24   10. (Original) The method defined in claim **7**, wherein identifying the second pixel

25   includes identifying which pixel having the designated shade value is second

26   nearest the reference point.

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28   11. (Original) The method defined in claim **7**, wherein identifying the second pixel

29   includes identifying which pixel separated from the first pixel by at least a

30   minimum distance and having the designated shade value is second nearest the

31   reference point.

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33   12. (Original) The method defined in claim **11**, wherein the reference point is a center

34   of the image.

13. (Original) The method defined in claim **11**, wherein the reference point is a corner of the image.

14. (Original) The method defined in claim **11**, wherein the reference point is a salient feature of the image.

15. (Original) The method defined in claim **14**, further including identifying the salient feature of the image.

16. (Original) The method defined in claim **1**, further including consulting a database to obtain the designated shade values.

17. (Original) The method defined in claim **1**, wherein the plurality of designated shade values are pre-determined and independent of the image.

18. (Original) The method defined in claim **1**, further including selecting the plurality of designated shade values on a basis of a characteristic of the image.

19. (Original) The method defined in claim **1**, wherein the designated shade values are grayscale values.

20. (Original) The method defined in claim **1**, wherein the range of shade values includes 256 grayscale values.

21. (Original) The method defined in claim **1**, wherein each said combination of pixels includes a respective first pixel and a respective second pixel, and wherein determining a geometric measure of the pixels in a particular one of the plurality of combinations includes determining a distance between the respective first pixel and the respective second pixel.

22. (Original) The method defined in claim **21**, wherein said determining a distance between the respective first pixel and the respective second pixel includes

determining a number of pixels separating the respective first pixel and the respective second pixel.

23. (Original) The method defined in claim **21**, wherein said determining a distance between the respective first pixel and the respective second pixel includes determining a first number of pixels separating the respective first pixel and the respective second pixel along a first direction and determining a second number of pixels separating the respective first pixel and the respective second pixel along a second direction orthogonal to the first direction.

24. (Original) The method defined in claim **1**, wherein each said combination of pixels includes at least three respective pixels.

25. (Original) The method defined in claim **24**, wherein determining a geometric measure of the pixels in a particular one of the plurality of combinations includes determining an average distance among all pairs of the at least three respective pixels.

26. (Original) The method defined in claim **24**, wherein determining a geometric measure of the pixels in a particular one of the plurality of combinations includes determining an area of a polygon constructed from the at least three respective pixels.

27. (Original) The method defined in claim **24**, wherein determining a geometric measure of the pixels in a particular one of the plurality of combinations includes determining an average distance to a center of mass of the at least three respective pixels.

28. (Original) The method defined in claim **1**, wherein each combination of pixels includes a plurality of pixels taken from the same subset of pixels.

29. (Original) The method defined in claim **1**, wherein all the pixels in a particular one of the combinations of pixels are taken from the same subset of pixels.

1   30. (Original) The method defined in claim **1**, wherein each combination of pixels
2   includes at least two pixels taken from different subsets of pixels.
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4   31. (Original) The method defined in claim **1**, wherein said encoding the geometric
5   measures into a digital code includes concatenating the geometric measures into
6   the digital code.
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8   32. (Original) The method defined in claim **1**, further including encoding the
9   designated shade values into the digital code.
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11   33. (Original) The method defined in claim **1**, further including encrypting the digital
12   code.
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14   34. (Original) The method defined in claim **1**, wherein the skin-covered body part
15   includes a finger tip.
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17   35. (Original) The method defined in claim **1**, wherein the skin-covered body part
18   does not includes a finger tip.
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20   36. (Original) The method defined in claim **1**, wherein the skin-covered body part
21   includes a nose tip.
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23   37. (Original) The method defined in claim **1**, wherein the skin-covered body part
24   includes a palm of a hand.
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26   38. (Original) The method defined in claim **1**, wherein the skin-covered body part
27   includes an ear.
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29   39. (Original) A computer-readable storage medium containing a program element for
30   execution by a computing device to implement a method of obtaining a digital
31   code representative of a skin-covered body part, the program element including:
32   -   program code means for acquiring an image of the skin-covered body part, the
33   image including a plurality of pixels, each pixel having an associated shade
34   value in a range of shade values;

1   - program code means for identifying a plurality of subsets of pixels from the

2   plurality of pixels, each subset of pixels including at least two pixels having a

3   common one of a plurality of designated shade values in the range of shade

4   values;

5   - program code means for determining, for each of a plurality of combinations

6   of pixels taken from the pixels in the subsets of pixels, a geometric measure of

7   the pixels in said combination;

8   - program code means for encoding the geometric measures into a digital code

9   for the skin-covered body part.

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11   40. (Original) An apparatus for obtaining a digital code representative of a skin-

12   covered body part, the apparatus including:

13   - means for acquiring an image of the skin-covered body part, the image

14   including a plurality of pixels, each pixel having an associated shade value in a

15   range of shade values;

16   - means for identifying a plurality of subsets of pixels from the plurality of

17   pixels, each subset of pixels including at least two pixels having a common

18   one of a plurality of designated shade values in the range of shade values;

19   - means for determining, for each of a plurality of combinations of pixels taken

20   from the pixels in the subsets of pixels, a geometric measure of the pixels in

21   said combination;

22   - means for encoding the geometric measures into a digital code for the skin-

23   covered body part.

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25   41-90. (Cancelled)

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